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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,931	11/01/1999	PAUL DAVID TATARKA	D-20196-1	9419

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EXAMINER

JACKSON, MONIQUE R

ART UNIT	PAPER NUMBER
1773	23

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/431,931	TATARAKA ET AL.
	Examiner	Art Unit
	Monique R Jackson	1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 30 May 2003.

2a) This action is **FINAL**.                                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-118 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 1-76,93-114 and 116-118 is/are allowed.

6) Claim(s) 77-81,84,86,87,89,92 and 115 is/are rejected.

7) Claim(s) 82,83,85,88,90 and 91 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

1. The amendment filed 5/30/03 has been entered. New Claims 112-118 have been added. Claims 1-118 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Terminal Disclaimer***

3. The terminal disclaimer filed on 6/13/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application No. 09/401,692 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Claim Rejections - 35 USC § 103***

4. Claims 77-81, 84, 86, 87, 89, 92 and new Claim 115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilhoit et al (USPN 5,928,740) for reasons as stated in the prior office action and recited below.
5. Wilhoit et al teach a polymer blend and mono- and multilayer films made therefrom having improved properties such as heat sealing or puncture resistance particularly useful in making heat shrinkable, oriented films for packaging food and non-food articles, wherein the blend has a first polymer comprising a copolymer of ethylene and at least one C<sub>3</sub>-C<sub>10</sub> α-olefin having a polymer melting point between 55 and 75°C (*reads on the first polymer of the instant invention*); a second polymer comprising a copolymer of ethylene and at least one C<sub>3</sub>-C<sub>10</sub> α-olefin having a polymer melting point between 85 and 110°C; a third thermoplastic polymer, preferably a copolymer of ethylene and at least one C<sub>3</sub>-C<sub>10</sub> α-olefin, having a melting point

between 115 and 130°C (*reads on the second polymer of the instant invention*); and a preferred fourth polymer having a melting point between 80-105°C such as copolymers of ethylene and unsaturated esters like ethylene vinyl acetate and ethylene alkyl acrylates (*reads on the third polymer of the instant invention*; Abstract; Col. 1, lines 5-10; Col. 7, lines 24-40; Col. 8, line 62 – Col. 9, line 17.) Wilhoit et al teach that it is to be understood that the use of the term "copolymer of ethylene" means that the copolymer is predominantly comprised of ethylene with that at least 50% by weight of the copolymer derived from ethylene monomer units in forming the copolymer with suitable  $\alpha$ -olefins including C<sub>3</sub> to C<sub>10</sub>  $\alpha$ -olefins such as propene, butene-1, pentene-1, hexene-1, methylpentene-1, octene-1, decene-1 and combinations thereof such that the invention contemplates use not only of bipolymers, but copolymers of multiple monomers such as terpolymers e.g. ethylene-butene-1-hexene-1 terpolymer (Col. 6. lines 56-67.) Wilhoit et al teaches that the blend preferably comprises at least 10wt% of the first ethylene polymer, preferably 20-35wt% of the total polymer content of the four component blend, with use of lesser amounts reducing the shrinkability and higher amounts making orientation more difficult and possibly increasing extractable moieties to amounts which are undesirable for certain applications; at least 10wt% of the second ethylene polymer, preferably from about 30 to 70wt% of the total polymer weight of the polymer blend, preferably 25 to 60wt% in the preferred four component blend; at least 10wt% of the third ethylene polymer, preferably about 10 to 30wt% of the total polymer content of the four component blend; and about 10 to 30wt% of the fourth ethylene vinyl ester or alkyl acrylate copolymer of the total weight of the polymer blend.

6. Though Wilhoit et al does not specifically teach the entire weight ranges as recited in the instantly claimed invention, when computing the weight percentages based on the weight of only

the first, third and fourth polymers of Wilhoit et al, which correspond to the three polymer blend of the instant application, the weight percentages overlap or fall within the instantly claimed ranges for the first, second, and third polymers, respectively, of the instant invention, including an amount of at least 50wt% for the first polymer based on the total weight of these three polymers; Col. 7, lines 46-58; Col. 8, lines 14-26 and lines 49-61; Col. 9, lines 23-26.)

Therefore, given the teachings of Wilhoit et al, one having ordinary skill in the art at the time of the invention would have been motivated to utilize any of the polymers taught by Wilhoit et al including octene-1 as the C<sub>3</sub>-C<sub>10</sub>  $\alpha$ -olefin in the first polymer having a polymer melting point between 55 and 75°C and to utilize any amounts within the ranges disclosed by Wilhoit et al given the reasonable expectation of success and given that Wilhoit et al teach that the amount of the first polymer is a result-effective variable with use of lesser amounts reducing the shrinkability and higher amounts making orientation more difficult and possibly increasing extractable moieties to amounts which are undesirable for certain applications.

7. With regards to process claims 86, 87, and 92, Wilhoit et al further teach that the polymer blend can be utilized to form an inner layer of a multilayer tubular film wherein in a preferred process for making an oriented or heat shrinkable film, a primary tube comprising the polymer blend is extruded and after leaving the die is inflated by admission of air, cooled, collapsed, and then preferably oriented by reinflating to form a secondary bubble with reheating to the film's orientation or draw temperature range with suitable machine direction and transverse direction stretch ratios from about 3:1 to about 5:1 with a ratio of about 4:1 preferred (Col. 11, lines 16-36.) Wilhoit et al teach that the films may be monolayer or multilayer films preferably of 10 mils or less (Col. 11, lines 37-38.) Wilhoit et al teach that the drawing point or orientation

temperature is below the melting point of each layer to be oriented and above the layer's Vicat softening point with examples utilizing a draw point temperature between about 71-79°C and further teach that draw point temperature, bubble cooling rates and orientation ratios are generally adjusted to maximize bubble stability with use of higher throughput rates and lower draw point temperatures believed to provide films having higher puncture resistance relative to use of lower throughputs or higher orientation temperatures (Col. 14, lines 33-43.)

8. Hence, though Wilhoit et al teach an example draw point within the instantly claimed temperature ranges, Wilhoit et al does not specifically limit the invention to a draw point temperature of from 65° to 88°C or 68° to 79°C as instantly claimed. However, based on the teachings of Wilhoit et al one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum draw point temperature for a particular film composition or the optimum operating conditions for a particular process based on the desired puncture resistance of the resulting film given the reasonable expectation of success.

*Allowable Subject Matter*

9. Claims 82, 83, 85, 88, 90 and 91 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 1-76, 93-114 and 116-118 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art is Wilhoit et al as discussed in detail above. Though Wilhoit et al teach a

polymer blend comprising some components that read on the instantly claimed components, Wilhoit et al do not teach or suggest the use of interpolymers in the blend and further do not teach or suggest the film properties as instantly claimed.

***Response to Arguments***

12. Applicant's arguments filed 5/30/03 and 6/13/03 have been fully considered but are not persuasive. The Applicant argues that the amended claims reciting "consisting essentially of" overcome the rejection based on Wilhoit et al given that the term "consisting essentially of" limits the invention to the specified materials and those that do not materially affect the basic and novel characteristics of the claimed invention. However, given that the Applicant has provided no explanation to support this argument, it is unclear how the additional polymer in the blend taught by Wilhoit et al would "materially affect the basic and novel characteristics of the claimed invention" given that the instant disclosure states that the polymer blend can comprise other polymers wherein the three polymer blend advantageously comprises at least 50wt% though less than 50% may be utilized (Page 25, lines 1-5) and further states that the instant polymer blend "may be further blended with additional resins such as very low density polyethylene (VLDPE), linear low density polyethylene (LLDPE), low density polyethylene (LDPE), high density polyethylene (HDPE), ionomers, polyamides, polypropylenes, ethylene acrylates or esters, various olefinic polymers or copolymers, adhesive resins" (Page 27, lines 14-20.) Hence, Applicant's arguments are not persuasive given that the additional polymer taught by Wilhoit et al falls within the requirements described in the instant disclosure and therefore does not appear to materially affect the basic and novel characteristics of the claimed invention. However, the

Examiner will reconsider her position upon a clear showing that the additional polymer taught by Wilhoit et al does materially affect the basic and novel characteristics of the claimed invention.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Art Unit: 1773

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson  
Patent Examiner  
Technology Center 1700  
August 20, 2003